

- 9 -

CLAIMS:

1. A filtration arrangement including one or more membrane modules positioned vertically within a feed tank, each membrane module having one or more membranes positioned therein, an aeration hood having an upper wall and
5 one or more downwardly extending side walls configured to at least partially shroud said membrane modules within said tank, said aeration hood including a number of open-ended tubes, each extending downwardly from said upper wall and forming a respective opening therein, each tube adapted to have at least one of said modules mounted therein and extending through said respective
10 openings in the upper wall so as to at least partially surround an outer periphery of an associated module or modules, one or more aeration openings being provided in each tube at a location spaced from a proximal end of said tube, said aeration hood side wall or walls extending to below the location of said aeration openings in said tubes, and gas providing means for feeding gas into
15 said hood.
2. A filtration arrangement according to claim 1 wherein one or more of said aeration hood side walls are formed by side walls of the feed tank with the upper wall being sealingly attached to the side wall so formed.
3. A filtration arrangement according to claim 1 or 2 wherein the aeration
20 openings are provided at or adjacent the distal end of each tube and the aeration hood side wall or walls extend to or below the downward extent of a distal end of said tubes.
4. A filtration arrangement according to claim 1, 2 or 3 wherein each membrane module has an associated tube surrounding an outer periphery
25 thereof.

- 10 -

5. A filtration arrangement according to any one of the preceding claims wherein the openings include a number of through holes located around the periphery of each tube and spaced from the distal end of said tube.
6. A filtration arrangement according to any one of claims 1 to 3 wherein the
5 openings include a number of open-ended slots located around the periphery of each tube and extending upwardly from the distal end of said tube.
7. A filtration arrangement according to any one of the preceding claims wherein the gas providing means comprise an aeration header located below the aeration hood.
- 10 8. A filtration arrangement according to any one of the preceding claims wherein said at least one module includes a sleeve surrounding the outer periphery to prevent flow of gas therethrough, said sleeve extending part way along the length of the module to define an open region at or adjacent the lower end of the module to allow flow of gas into the module through said open region,
15 said hood being positioned to shroud the module at the location of said open region such that gas passing through said aeration openings may pass through said open region into the module membranes.
9. A method of cleaning membrane modules in arrangement according to the any one of the preceding claims including the steps of:
- 20 v) suspending the filtration operation;
- vi) displacing feed liquid within the aeration hood to a level below the location of said aeration openings in each tube by feeding gas into said aeration hood while maintaining a liquid seal with the distal end of each tube;

- 11 -

- vii) passing said gas through said aeration openings into said tubes
and along surfaces of membranes within each membrane module
to dislodge accumulated fouling materials therefrom;
- viii) recommencing the filtration operation.